19991102.ba v02_n718.bam.991102

>From ???@??? Tue Nov 02 19:48:55 1999
Message-Id: <199911022211.dA2MBLw08534@sco.theporch.com>
Date: Tue, 2 Nov 1999 16:10:14 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2718

BOATANCHORS Digest 2718

Topics covered in this issue include:

1) Re: Scopes, etc. one caveat/PS (453)
by Arden Allen <gumbear@pacbell.net>
2) RG-17 connectors
by Kevin Gallagher <wire2liv@in-tch.com>
3) Camp Evans Tours Nov 20 th. -- A Big radio day.
by "John Dilks, K2TQN" <oldradio@worldnet.att.net>
4) Re: Scopes, etc.
by George Sieverson <k9gdt@starnetusa.net>
5) misc shack cleaning
by lurch <lurch@theramp.net>
6) More Loctals!
by William Donzelli <aw288@osfn.org>
7) Jim William's books on Analog Circuit Design
by "David M. Upton" <david@wb1cmg.mv.com>
8) Spline cable thing wanted
by William Donzelli <aw288@osfn.org>
9) R&R Paints Info
by "Jim Reynolds" <ki6up@earthlink.net>
10) Re: Jim William's books on Analog Circuit Design
by Arden Allen <gumbear@pacbell.net>
11) Old Japanese valves.. equivs ?
by BEN NOCK <G4BXD@compuserve.com>
12) FS Nazi Germany mil receiver
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
13) Re: R&R Paints Info
by "Mike Warren" <w5maz@earthlink.net>
14) Re: Pilot Lamp Brackets
by Jderm740@aol.com
15) Regenerative Detectors
by NBroline@aol.com
16) More Loctals Gone
by William Donzelli <aw288@osfn.org>
17) RE: Scopes, etc. 454A???
by dma@islandnet.com
18) Re: What an amp!

by William Donzelli <aw288@osfn.org>
19) Re: What an amp!
by Richard Loken <richardlo@devax.admin.athabascau.ca>
20) 866 Juniors
by "ALLEN,JIM (HP-Cupertino,ex1)" <jim_allen@agilent.com>
21) Re: Jim William's books on Analog Circuit Design
by Morris Odell <morriso@vifp.monash.edu.au>
22) Re: What an amp!
by "Robert P. Okas" <vintage@best.com>
23) Re: Scopes, etc.
by Morris Odell <morriso@vifp.monash.edu.au>

Date: Mon, 01 Nov 1999 12:33:30 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: Scopes, etc. one caveat/PS (453)
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0FKJ00AC9D81RV@mta2.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi Ed;

I get the impression you don't like nuvistors. I'll concede that nuvistors are not as stable or quiet as FET's but think of my dilemna: I have two 1A1 plugins (an example of Tek's weirder stuff), one is a spare for my 545B. One has FET inputs and the other nuvistor inputs. One day my FET plugin blew a bipolar transistor in one of the later stages. I switched over to using the nuvistor 1A1 (I repaired the dead one later) and as time went by I forgot I was using the nuvistor plugin because in settled in quite nicely. Object lesson: Nuvistors are TOOBS too. Be kind to ALL toobs.

Arden Allen   KB6NAX   Vallejo, CA   gumbear@pacbell.net

Message-ID: <381E0995.3037@in-tch.com>
Date: Mon, 01 Nov 1999 14:43:49 -0700
From: Kevin Gallagher <wire2liv@in-tch.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RG-17 connectors
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Gents, I am in need of a couple of RG-17 connectors. I can use either HN or N connectors in either male or female configuration. If you have some or know where they might be obtained, please let me know. Thanks for your time, Kevin

----

Message-ID: <381E3045.1B47@worldnet.att.net>
Date: Mon, 01 Nov 1999 19:28:53 -0500
From: "John Dilks, K2TQN" <oldradio@worldnet.att.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Camp Evans Tours Nov 20 th. -- A Big radio day.
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

to all,

[Note: this information was assembled from several pieces of a news release - please double check if planning to attend. I will forward additional info if it becomes available.]

FORT MONMOUTH, NJ -- Fort Monmouth and the Wall Township Restoration Advisory Board (RAB) have scheduled continuous tours of the Evans Area of Wall Township, for Saturday, November 20, from 9 a.m. to 3 p.m. to bring members of the public up to date on the Army remediation work in the Evans area, which is nearing completion. The RAB is a public forum for promoting community involvement in the environmental restoration process associated with the closure of the Evans Area. This will be the final tour before the transfer of the property to Wall Township early next year.

The RAB will offer tour-goers the option of visiting different groups of buildings and taking a bus tour of the site. The buildings will include the Marconi Hotel and a Marconi cottage, an ?H? building and several other WWII buildings. A ?ham radio? demonstration will be given in the Marconi cottage by the Ocean-Monmouth Amateur Radio Club and they will explain how communications took place during the early days of radio. A tour of the Hotel will be given by Mr. Fred Carl, the Wall Township Historian. He will also provide insight on the Information Age Learning Center which is programmed to be located there in the near furure. Mr. Charles Appleby, the Army Environmental Coordinator for the Evans Area, will also be available to answer any environmental remediation questions. Several other groups will also be providing information?

Buses will depart from the parking lot outside the former Marconi Hotel on Marconi Road, which can be reached by Route 18 northbound travelers by travelling up the hill and turning right into the Marconi Hotel parking lot after the second intersection. Southbound travelers will merge onto Brighton Avenue and make the first right onto Marconi Road, which leads up the hill to the parking lot.

Camp Evans Web Site: http://www.infoage.org/

--
73' John Dilks, K2TQN

Webmaster for "Page 2" all about Antique Wireless
http://www.eht.com/oldradio/awa/
-=and=-
for the New Jersey Antique Radio Club
http://www.eht.com/oldradio/

Please visit my OldRadio Museum
http://www.eht.com/oldradio/museum/

Message-ID: <381E333A.856AFEA3@starnetusa.net>
Date: Mon, 01 Nov 1999 18:41:30 -0600
From: George Sieverson <k9gdt@starnetusa.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Scopes, etc.
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

"Richard W. Solomon" wrote:

> While there are plenty of the Tektronix 455/465/475 scopes available, I
> would hate to fix one. It's something like a three dimensional jig-saw puzzle.

I've always admired the exquisite packaging job Tek's engineers did on the 465/475 units.....a lot of high-class circuitry in a small package. However, I would never own one as my own personal instrument. It will be very difficult to keep one going once Tek decides it will no longer supply parts. For instance, the electrolytic capacitors used in the power supplies are bunched together to make a small footprint on the main board. They are very tall with a small diameter. Although my well stocked junk box undoubtedly has an electrical equivalent for any one of these capacitors, I'd bet anyone here a case of Samuel Adams that not a single one would fit inside that chassis. Ugh!

> Keep your eyes open for the 7600/7700 series. They are bigger, but easier to
> work on and have a variety of plug-ins that do almost anything.

Amen, Dick! I've seen them at hamfests selling for around $200, with plug ins. They are fine instruments with a large, bright display. Very important for us Jurassic Geezers!

My all time favorite Tek Scopes? .....547, 555, 453A, and 485. What do I now own? A Tek 2335 (Hey, the price was right!) and an HP 1740A, an fine instrument I can keep running forever.

73 'n cheers 'n beers,
George - K9GDT
****
Web Page: http://pwp.starnetinc.com/k9gdt/index.htm
(Radio Page - BA's & Homebrew) Updated 10/19/99
****

Message-ID: <381E5437.AE6B8698@theramp.net>
Date: Mon, 01 Nov 1999 21:02:15 -0600
From: lurch <lurch@theramp.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: misc shack cleaning
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

cleaning the shack again...this time around I have:

Viking 2 chassis--a complete hulk, less meter and cabinet. I think all the iron is good.
Restorable, or for parts, but I simply do not have the time or space.
Free to good home. Pickup only in NW Chicago suburbs.

email lurch@theramp.net

73 de KA9EGW

Date: Mon, 1 Nov 1999 22:34:50 -0500 (EST)
From: William Donzelli <aw288@osfn.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: More Loctals!
Message-ID: <Pine.SUN.3.91-FP.991101223039.11153B-100000@osfn.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Back by popular demand!

Less yucky than the last batch!

50 or so, but this time the price will be $10 plus shipping as these untested tubes look a little nicer.

William Donzelli
aw288@osfn.org

Message-ID: <381E8408.6CC8@wb1cmg.mv.com>
Date: Mon, 01 Nov 1999 22:26:16 -0800
From: "David M. Upton" <david@wb1cmg.mv.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Jim William's books on Analog Circuit Design
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The recent discussion about scopes and test equipment sent me scurrying back through my memory about scope circuit design. Some of the more insightful comments on the subject are contained in Jim William's two books on Analog circuit Design. While there is some boatanchor content, it is mainly about the practice of good circuit design regardless of the technology. There are papers contained in these anthologies that are highly technical, light-hearted, laden with hindsight, historical, or philosophical. It is enjoyable light reading during lunch for the technically inclined. There are several articles about scope design in both books. Of course, it isn't on a par with Frye's Modern Radio Servicing that I memorized at a tender age but that's another story. Both Williams volumes are available from Butterworth-Heinemann.

David M. Upton, WB1CMG

Date: Mon, 1 Nov 1999 23:12:31 -0500 (EST)
From: William Donzelli <aw288@osfn.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Spline cable thing wanted
Message-ID: <Pine.SUN.3.91-FP.991101230641.11153E-100000@osfn.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I am on a search for a little "coupler" for a military spline cable. This is to be used for an ASB radar setup. Basically it is a small L shaped bracket with a male-male coupler for the larger "GF/RU-style" spline cables.

These were originally mounted to the scopes (that's what those holes are for!) , with the tuning knob to the side of the screen yet still connected to the receiver tuner located a few feet away.

So, does anyone have one of these odd things?

William Donzelli

aw288@osfn.org

From: "Jim Reynolds" <ki6up@earthlink.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: R&R Paints Info
Date: Mon, 1 Nov 1999 22:13:17 -0600
Message-ID: <002201bf24e8$96dad680$264afc9e@ripcord>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Remember the Boat anchor exact paint matching man, RandR? I went to the web address to get the number. and its gone... I hope he is still in business. Anyone know a number?

I brought home a pretty R-390A today. Needs a new or like new set of knobs however. Any suggestions there?

Also got my first Hallicrafters 25A..... what a nice week end!~

73
KI6UP

Date: Mon, 01 Nov 1999 20:37:56 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: Jim William's books on Analog Circuit Design
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0FKJ00MZ5ZJISU@mta1.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi David;

> ....Some of the more insightful comments on the
> subject are contained in Jim William's two
> books on Analog circuit Design. ....

In one of Jim William's many articles I came across some years ago he sang the virtues of the 547 and claimed he still used one to do integrated circuit design work. Having that story in the back of my mind, by chance I ran into Mr. Williams at the Foothill College (Los Altos, CA, near Stanford U) swap meet a couple of years ago. I stopped to look at a couple of Tek scopes that appeared to be the subject of some haggling by a couple of gentlemen and found myself listening to an interesting discussion on scopes. It wasn't too long before I butted in with a couple of questions which led to an offer of help from one of the gentlemen. He said, "give me a call at work any time and I'll get that info for you". He handed me a piece of paper he hastily scrawled a phone number on. Perplexed, I asked him his name and he answered matter of factly, "Jim Williams". Mesmerized, I blurted, "of National Semiconductor?" He gave me a wry look and again in a matter of fact manner said "Linear Technology". I hobbled off while I could still hide my face behind my foot in my mouth. A coupled of days later I called him and he gave me the phone number of the fellow in Florida who rewinds high voltage transformers. Quite a decent fellow, Jim Williams.

Arden Allen   KB6NAX   Vallejo, CA   gumbear@pacbell.net

Date: Tue, 2 Nov 1999 04:07:39 -0500
From: BEN NOCK <G4BXD@compuserve.com>
Subject: Old Japanese valves.. equivs ?
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199911020407_MC2-8B56-9F4F@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain;
      charset=ISO-8859-1
Content-Disposition: inline

Can anyone suggest modern equivalent types for the following old Japanese=
 =

valves.

UF109A
UF134
UZ133D
UZ12C

cheers, Ben.

Message-ID: <00c801bf2513$92ca48c0$1f00a8c0@ro>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS Nazi Germany mil receiver
Date: Tue, 2 Nov 1999 10:12:02 +0100
MIME-Version: 1.0
Content-Type: multipart/alternative;
     boundary="----=_NextPart_000_00BD_01BF251A.B4D68BC0"

This is a multi-part message in MIME format.

------=_NextPart_000_00BD_01BF251A.B4D68BC0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

WW2 receiver type Torn E.b. for sale 500 USD + shipping

------=_NextPart_000_00BD_01BF251A.B4D68BC0

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*         ---REMAINDER OF MESSAGE TRUNCATED---             *
*     This post contains a forbidden message format        *
*  (such as an attached file, a v-card, HTML formatting)   *
*    Mail Lists at theporch.com only accept PLAIN TEXT     *
* If your postings display this message your mail program  *
* is not set to send PLAIN TEXT ONLY and needs adjusting   *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

Message-ID: <004401bf252f$dbb18c80$e5c61b26@mikewarr>
From: "Mike Warren" <w5maz@earthlink.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: R&R Paints Info
Date: Tue, 2 Nov 1999 06:43:24 -0600
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Rob sold his paint business to N0ALO
http://www2.southwind.net/~n0alo/.

73,
W5MAZ

----- Original Message -----
From: Jim Reynolds <ki6up@earthlink.net>
To: Old Tube Radios <boatanchors@theporch.com>
Sent: Monday, November 01, 1999 10:13 PM
Subject: R&R Paints Info

> Remember the Boat anchor exact paint matching man, RandR? I
went to the web
> address to get the number. and its gone... I hope he is still
in business.

> Anyone know a number?
>
> I brought home a pretty R-390A today. Needs a new or like new
set of knobs
> however. Any suggestions there?
>
> Also got my first Hallicrafters 25A..... what a nice week end!~
>
> 73
> KI6UP
>
>

From: Jderm740@aol.com
Message-ID: <0.7c74beda.25504f7d@aol.com>
Date: Tue, 2 Nov 1999 09:30:21 EST
Subject: Re: Pilot Lamp Brackets
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Hi

Awhile ago a member was looking for pilot brackets. I just was going through the latest issue of All Electronics catalog and they have quite a few different styles.

Their web site is, www.allelectronics.com. Email, allcorp@allcorp.com

Jack

From: NBroline@aol.com
Message-ID: <0.bc1b6ed2.25505221@aol.com>
Date: Tue, 2 Nov 1999 09:41:37 EST
Subject: Regenerative Detectors
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

First, Thanks to everyone for the comments and encouragement regarding the theory behind Mr. Armstrong's little beauty...

Regarding the "plops" that announce the detector's transition into free oscillation: I feel that this is the mark of a dc change in the plate circuit of the detector tube. This is easy to say, but where did it come from? Ideally we'd like have the detector cross over that line smoothly and with only the smallest changes in dc operating parameters. Since the grid is the most sensitive element in the tube to change, let's investigate that first.

Before onset of oscillation it is operating with no source of dc bias except contact potential. All electrons the grid intercepts are leaked off through the griid leak resistance, creating a negative potential on the grid that helps establish the dc operating point on the screen and the plate. When the RF gain of the detector is increased a very small increment the noise in the circuit is very quickly amplified and increasing levels of sustained oscillations occur. But what determines the level of oscillations, and what dc parameters could change? With a loop gain of greater than unity the level of oscillation will increase until something changes sufficiently to reduce the loop gain to untiy (exactly) and holds it there. Often the limiter of oscillation amplitude is the plate voltage, in which case the plate voltage is possibly swinging from a very low voltage (tube saturation) to something like double the plate voltage...which is very wild and hopefully nothing like our detector. For our detector, I suspect that the limiting comes fom the grid leak. Oscillations are causing the grid to swing positive, making the grid current to flow, which causes the voltage ocross the grid leak to increase, and the voltage is smoothed by the grid capacitor as a static dc voltage. The net result is the grid bias voltage becomes more negative, the screen and plate currents decrease, the gain goes down, and the level of oscillations is stabalized at something (hopefully) well short of rail-to-rail on the plate. But hold it! I said the screen and plate currents decrease, and depending on how they are detived, the element voltages most likely increase (if they are derived from series resistors), which should cause the gain to increase! Increasing the gain now causes the level of oscillation to increase more, creates more negative grid voltage, and so on. Sounds like what we have is positive feedback in the dc operating point of the tube. Undoubteldy what we'll have is hysteresis in the oscillation point, and a mush bigger dc change in the operating point than we wanted (which was none).

Perhaps a way to reduce the "plop" is the have a stiffer source for the plate, which implies that a choke will have a lower dc resistance than a resistive load. Cretainly the screen operated from a stiffer source would reduce the screen voltage shift. And the grid...this is tough. What we want is for the tube grid to have only a very small shift in its dc point. This means that the grid leak is selected to produce sufficient contact potential to have some some slight gain influence with no oscillation so that the transition to oscillation limiting will be approximately linear. and not require a large transition. It is not clear to me that the selection of sharp or remote cutoff tube characteristic is better. While the sharp cutoff tube will have to change the grid dc voltage less for the same changes in RF gain required for the oscillation to stabablize in amplitude, the change in other element currents will be correspondingly greater for tha small change. What IS CLEAR, though, is the desirability of limited low frequency response in the plate circuit. The dc plate current shift will produce a certain "thump" in credible wideband audio stages.

I am terrorized when I think of the potentials for multi-frequency RF feedback when we look at good wideband tubes for detectors. While we provide good inductive feedback with all of the detector architectures, it is also possible that VHF paracitics are produced in the leads, interwinding capacity, and other "normal places" in the circuit. I have often wondered when someone reports that moving one wire a 1/8 inch causes the receiver to become a wild beast, I suspect that perhaps the receiver may have added another oscillation loop that we don't expect. We'll all agree that 1/8 inche is not going to break or make a receiver operating in the broadcast band!

If anyone beats me to the workbench to measure some of these changes as the regen control goes theough the transition region, please sing out your results. This is where a trusty HP-410 VTVM and its 125 meg dc probe would shine. It will add capacity, but not much else. It sure won't load the circuit. What does the grid, screen, and plate do???

Date: Tue, 2 Nov 1999 11:15:35 -0500 (EST)
From: William Donzelli <aw288@osfn.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: More Loctals Gone
Message-ID: <Pine.SUN.3.91-FP.991102111418.11642D-100000@osfn.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

The second batch of loctals have been spoken for.

William Donzelli
aw288@osfn.org

Message-Id: <m11iiRE-0006ggC@mail.islandnet.com>
Date: Tue, 02 Nov 1999 09:46:38 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: dma@islandnet.com
Subject: RE: Scopes, etc. 454A???
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi All ...

I'd always figured that sooner or later I'd need to have replacement nuvistors for my '454'. So when the scope thread started, I thought maybe it was time. So I went to my Tek manual and - lo and behold - no nuvistors to be found anywhere. My scope is a 454A (as is the manual) so I assume this model replaced the vertical input nuvistors. Is this so???

What is in the first position is a matched fet semiconductor.

BTW - my favorite scopes? My 454A and my 535 - especially when the wind blows out of the north and the shack grows chilly!

Jan Skirrow, VE7DJX
Duncan, British Columbia, Canada

Date: Tue, 2 Nov 1999 13:24:08 -0500 (EST)
From: William Donzelli <aw288@osfn.org>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: What an amp!
Message-ID: <Pine.SUN.3.91-FP.991102131516.11642G-100000@osfn.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> Bill Donzelli asked about how the other guys on a ship could hear the
> sonar at 21 KHz. Dunno 'bout the older sonars, but I can guarantee on
> the new ones *everyone* can hear it! Sure, the sensitivity of your
> ears is down quite a ways compared to lower-freq audio. However,
> you've got a honking amplifier and transducer, and the ship's hull
> makes one helluva "speaker". <grin> With that much power floating
> around, your ears don't have to be super good...

A quick look in my manual collection shows that the prewar and wartime sonars all worked in the 19 to 28 KHz range, with some going a little higher. At those frequencies, even the young ears of the submariners would not hear anything.

Interesting things, them sonar receivers - imagine using a VLF superhet.

William Donzelli
aw288@osfn.org

Date: Tue, 02 Nov 1999 13:23:41 -0600 (MDT)
From: Richard Loken <richardlo@devax.admin.athabascau.ca>
Subject: Re: What an amp!
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Message-id:

<Pine.PMDF.3.95.991102113417.545327764A-100000@devax.admin.athabascau.ca>
MIME-version: 1.0
Content-type: TEXT/PLAIN; charset=US-ASCII

On Tue, 2 Nov 1999, William Donzelli wrote:

> A quick look in my manual collection shows that the prewar and wartime sonars all worked in the 19 to 28 KHz range, with some going a little higher. At those frequencies, even the young ears of the submariners would not hear anything.

I'm quite sure that even the youngest submariner can't hear 28KHz but they may well have heard something depending on what the vibrations did when they bounced against the hull. That being said, that pleasant little note heard in the movies would not be it.

When my ears were young and I worked in broadcast television I could not abide the 15KHz whine made by a picture monitors and if I had to work in the VTR room or some such place, and I was alone, I would shut off any monitor that I wasn't using because I didn't like the noise. I am not prepared to say that nobody could hear a 20KHz sonar ping but I remember what that 15.750KHz whistle sounded like and I don't think 20KHz would reproduce well if it was used in "Up Persiscope"

---

Richard Loken VE6BSV, Systems Programmer - VMS
Athabasca University
Athabasca, Alberta Canada
** richardlo@admin.athabascau.ca **

Message-ID: <87FB8F5CE210D311B60500A0C9F4871C2A3737@xcup01.cup.hp.com>
From: "ALLEN,JIM (HP-Cupertino,ex1)" <jim_allen@agilent.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 866 Juniors
Date: Tue, 2 Nov 1999 13:29:35 -0700
MIME-Version: 1.0
Content-Type: text/plain;
    charset="iso-8859-1"

Anyone have an idea for a substitution for 866 Juniors? They are used in the modulator power supply of the Globe King 400C. Solid state plug in or another hollow state would work.

The only suggestion so far is an 816. It needs a plate cap connection. Any ideas on a plug and play would be appreciated.

Thanks Much,

Jim

PS Anyone out there have a WRL 755 VFO they want to part with?

Message-ID: <381F54A8.61AE04E5@vifp.monash.edu.au>
Date: Wed, 03 Nov 1999 08:16:24 +1100
From: Morris Odell <morriso@vifp.monash.edu.au>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Jim William's books on Analog Circuit Design
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Arden,,

> In one of Jim William's many articles I came across some years ago he sang
> the virtues of the 547 and claimed he still used one to do integrated
> circuit design work.

I have one of his books with a delightful picture of his workbench on the cover. Among the semiconductors, junk food packets and general mess there is a 547 with a 1A4 plugin and a 1A7A next to it. There's also a lovely piece inside about his childhood spent with the next door neighbour from heaven who was wealthy enough to have a 535 for his home lab. He also wrote a wonderful chapter on the HP 200 type wein bridge oscillator that's well worth reading.

73, Morris VK3DOC

Date: Tue, 2 Nov 1999 13:20:36 -0800 (PST)
From: "Robert P. Okas" <vintage@best.com>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: What an amp!
Message-ID: <Pine.BSF.4.10.9911021317450.22051-100000@shell14.ba.best.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

In my younger days, I distinctly remember hearing the 19 Kc pilot tone when FM stereo was being broadcast. This on a Grundig hifi receiver. AFA TV goes, that horizontal sweep frequency still bothers me...

Bob

Message-ID: <381F6130.7716FB1A@vifp.monash.edu.au>

Date: Wed, 03 Nov 1999 09:09:52 +1100
From: Morris Odell <morriso@vifp.monash.edu.au>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Scopes, etc.
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Henry van Cleef wrote:

> Scope choices for working with ham radio?
>
> For cheap and durable, brand T is the only way to go, so far as I am concerned. You can read Stan Griffiths' book and see what he says, but he and I essentially agree on a few models. 547 with an assortment of good plug-ins was the best choice in the late 1960's, and you still can't do much better. They are built like battleships, and people will be using them fifty years from now.

I'll second that. The 547 is a wonderful machine. Once you get the HV transformer problem beaten and make sure the tunnel diodes are OK it's very easy to keep going.

> Also, some of the plug-ins (early 1A1/2/4) have (ugh!) nuvistors, although in light duty use they'll last a long time.

I have both the FET and nuvistor versions of the 1A1 and I must say that after the first few minutes you really can't tell the difference. When I got them, one nuvistor needed replacement and they've been going strong in amateur use ever since. I think a lot of the objections to nuvistors are valid if you are buying a scope for professional use but otherwise it's not likely to be a problem.

> Real stay-away-froms? Storage scopes have short-lived CRT's, and the storage feature generally means a muddy spot and much slower writing rates.

That's true but they are useful to have around for applications such as spectrum analysis that require very slow sweep speeds.

> Then, of course, there is the 575 Curve Tracer, which works with transistors and diodes, but not vacuum tubes. Really worth its weight in gold when you need to substitute an available transistor for an obsolete one. I've got one, a mod 122C (high voltage/higher current), that really paid for itself the first time I used it. Later curve tracers are set up to do FET work as well.

I find that you can test FETs on the 575 by adding a 1K to 10K resistor from the base to emitter terminals. This allows the base current supply to be converted to a gate voltage supply. You can then display FET curves nicely and switch from depletion to enhancement modes by changing the base step polarity. You can also test negative resistance devices such as UJTs and tunnel diodes if you know what you're looking at.

73 de Morris VK3DOC

End of BOATANCHORS Digest 2718
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